

## WHAT IS CLAIMED IS:

1. A variable impedance matching circuit having at least one  
stub lines connected in parallel or serial to a transmission line, characterized  
5 in that,

said at least one stub lines and said transmission line comprises at  
least one variable transmission line block changing an electrical length of  
the transmission line using at least one of switches operated by external  
control signal(s).

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2. The variable impedance matching circuit as claimed in claim 1,  
wherein said at least one of switches are a MOSFET or a Pin diode.

3. A  $\pi$  type variable impedance matching circuit comprising :  
15 a first, a second, and a third lumped element connected with a shape  
of  $\pi$  type;

at least one of switches which are capable of being operated by  
external control signals, connected to connection point(s) of said lumped  
elements,

20 wherein a topology is changed by selecting input/output ports or  
grounds using said at least one of switches.

4. A  $\pi$  type variable impedance matching circuit as claimed in  
claim 3,

wherein said first, second, and third lumped elements are variable inductances or variable capacitances.

5 5. A L type variable impedance matching circuit using lumped elements, characterized in that

a first and second lumped elements connected with a shape of L type;  
and

at least one of switches which are capable of being operated by external control signals, connected to connection point(s) of said lumped  
10 elements,

wherein a topology is changed by selecting input/output ports or grounds using said at least one of switches.

6. A L type variable impedance matching circuit as claimed in claim  
15 5,

wherein said first, and second lumped elements are variable inductances or variable capacitances.